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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/686,937 | 10/16/2003 | Bin Wu | KCX-692 (19490) | 4594 |
| 22827 7590 06/02/2009 DORITY & MANNING, P.A. POST OFFICE BOX 1449 GREENVILLE, SC 29602-1449 | | | | |
| EXAMINER | | | | |
| ARNOLD, ERNST V | | | | |
| ART UNIT | | PAPER NUMBER | | |
| 1616 | | | | |
| MAIL DATE | | DELIVERY MODE | | |
| 06/02/2009 | | PAPER | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

**Advisory Action
Before the Filing of an Appeal Brief**

| | |
|--------------------------------------|----------------------------------|
| Application No. 10/686,937 | Applicant(s) WU ET AL. |
| Examiner ERNST V. ARNOLD | Art Unit 1616 |

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 28 May 2009 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☐ The period for reply expires _____ months from the mailing date of the final rejection.
b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.
Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
(b) ☐ They raise the issue of new matter (see NOTE below);
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
The status of the claim(s) is (or will be) as follows:
Claim(s) allowed: _____.
Claim(s) objected to: _____.
Claim(s) rejected: 1-3, 5, 7, 9-23 and 25-30
Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:
See Continuation Sheet.
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). _____.
13. ☐ Other: _____.

/Ernst V Arnold/
Examiner, Art Unit 1616

Continuation of 11, does NOT place the application in condition for allowance because: 1) there are no claim amendments; 2) there is no showing of unexpected results; and 3) Applicant's arguments are not persuasive. Applicant asserts that there is no indication in JP '547 that the polyethyleneimine in the complex would contain any available ligands in order to additionally complex with metal ions and that even if ligands were available to complex with free metal ions, it can not be said that the PEI will complex with the metal ions. This is simply an opinion without factual evidence. The facts are, as demonstrated by Applicant, that mere addition of the metal ions to the PEI will result in the complex (See page 24 lines 15-16: "Upon addition of copper chloride, the solution turned deep blue, indicating the formation of a coordination complex."). Thus the fact is that the complex formation is immediate as evidenced by Applicant's own experimentation. Applicant's assertion that there would be no available sites on the PEI to additionally complex metal ions is not persuasive. As Applicant should be well aware, PEI is a polymer containing numerous secondary amine nitrogens the number of which would be dependent on the molecular weight of the polymer and whether the polymer is linear or branched. If PEI only had one binding site then Applicant's argument might be persuasive but because PEI contains a plurality of binding sites then it is reasonable to conclude that it can complex multiple objects multiple times. Furthermore, there is nothing of record and nothing has been shown that there are no available sites for complexation on the PEI after forming a complex with isobutene-maleic anhydride copolymer and adding that complex to the silicic acid gel containing the metal ions. Applicant is correct that the metal salts are in the vitreous structure of the silicic acid gels which also contain the PEI. Applicant's interpretation that the PEI would not mix into the gel is mistaken because the reference clearly teaches adding the PEI complex to the gel. Nothing has been shown otherwise. Therefore, the Examiner can only reasonably conclude that PEI with multiple coordination sites and the metal ions are in the presence of one another in the gel and produce a metal coordination complex in the absence of evidence to the contrary. Nothing has been shown otherwise. The fact remains that DERWENT-ACC-NO: 1992-393132 abstracting JP 04290547 teaches a use for a composition comprising PEI and metal ions as a deodorant that absorbs malodorous gases. Applicant's arguments concerning the secondary references are not persuasive. The secondary reference teaches aspects of the dependent claims known to one of ordinary skill in the art. No unexpected results have been shown. The predictable result remains an odor absorbing composition for use in a method of reducing odors. Applicant's arguments are not persuasive and claims 1-3,5,7,9-23 and 25-30 remain rejected.